

**Physics 208 – 01
Spring 2007**

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Welcome to Physics 208! This class is the second half of a calculus-based introductory level university physics course. The topics covered in this course will focus primarily on electricity, magnetism, and optics. The prerequisite for this course is credit in Physics 207. If you do not meet these prerequisites then you must withdraw from this course.

Goals: To understand and apply the following concepts

- Electric Force & Coulomb's Law
- Electric Fields & Electric Field Lines
- Gauss' Law
- Electric Potential, Equipotential Surfaces, & Electric Potential Energy
- Electric Current, Resistance, and Capacitance
- DC and AC Circuits
- Magnetic Fields and Magnetic Forces
- Induction (i.e. Induced Current) and Inductance
- Maxwell's Equations
- Electromagnetic Waves
- Images formed by Converging and Diverging Lens
- Interference of Light Waves
- Diffraction of Light Waves
- Use critical thinking skills to reason and predict the outcome of particular situations based on prior experience and knowledge.
- Describe their work, both orally and written, in a very clear and precise manner.

Textbook: Essential University Physics, Volume 2 by Richard Wolfson

Course Packet: Physics 204 & 208 Course Packet labeled *Spring 2007*

It is recommended that you have a Scientific Calculator.

Grading:

Tests (4)	20% each	} 80%
Daily Work/Homework	20%	
Final (Comprehensive)		20%
<hr/> TOTAL		100%

As the table above shows, 80% of your grade is based on five scores (four tests and the Daily Work/Homework grade). The lowest of these five scores will be dropped. If you do well on every exam but do not turn in homework (NOT RECOMMENDED), 80% of your grade will be based on your test scores only. On the other hand, if you turn in homework, but you “bomb” one of the tests that test score will be dropped and 80% of your grade will be based on 3 tests and the Daily Work/Homework grade. Note that the Final will NOT be dropped. Exams will occur approximately every three (3) weeks.

You will not receive credit for activities that occur during class time unless you are present, even if the university excuses the absence. Excused absences can be made-up if you make arrangements with me soon after your return to class. Otherwise, no make-up is possible. It is important that you attend class every period. Roll is taken at the beginning of each class period, so it is important that you arrive on-time. If you arrive late, it is your responsibility to remind the instructor to mark you present. At the discretion of the instructor, the accumulation of several (i.e. 4) “lates” may result in a penalty of up to 10% on the next or current exam.

It is extremely important that you turn in all homework assignments even if you are unable to complete the entire assignment. Zero (0) credit will be assigned if you fail to turn in an assignment. A zero (0) grade will lower your overall homework grade significantly. Unless stated otherwise, all homework is due at the start of the next class meeting after the work is assigned.

Departmental Attendance Policy

The Department of Mathematics and Physics believes that attendance is a vital component for success in any physics course. Thus, the department’s policy regarding attendance is as follows: *Any student that has excessive unexcused absences in a class must withdraw or receive an F for the course. Excessive unexcused absences mean accumulating more than three (3) unexcused absences in a semester.* The guidelines for excused absences may be found in the current ULM catalog. A copy of the documentation (doctor’s excuse, etc.) for an excused absence must be presented for the instructor’s records. If you participate in extracurricular activities and will be absent due to one of these activities, then it is your responsibility to inform the instructor that you will be absent before the activity. Roll will be taken at the beginning of class each day. If a student arrives late to class, it is the student’s responsibility to inform the instructor after class to mark him/her as present.

Blackboard

Materials such as daily assignments, homework and exam scores, and other miscellaneous announcements for this course will be posted on Blackboard.

Mid-term Grades

Mid-term grades will be posted on Arrow from March 5th through March 9th. Mid-term grades indicate a student's status at mid-semester and do not indicate the final performance outcome of a student.

Makeup Tests

If a student misses an exam due to an excused absence, the student must present a copy of the documentation as soon as possible, preferably by the next class meeting. If you miss an exam, you must call the day of the missed exam. If a message is left, then a phone number where you may be reached must be made available to the instructor. If a student misses a test due to an unexcused absence, the student will receive a zero (0) on the test. All make-up work will be taken preferably before the next class or at a prearranged time set by the instructor. Anyone who misses an exam due to a university excused absence will need to take the exam at a prearranged time with the instructor before they return back to class or otherwise take the make-up at the end of the semester.

Emergency Procedure

Please check the evacuation chart in the classroom for the shortest path out of the building in the event of an emergency. Also, please inform me if you will need extra assistance in the event that we have to evacuate the building. Please do not use the elevator when evacuating.

Academic Integrity

Faculty and students must observe the ULM published policy on Academic Dishonesty (see Page 4 in *ULM Student Policy Manual* -- <http://www.ulm.edu/studentpolicy/>).

Course Evaluation Policy

Students are expected to complete the on-line course evaluation. This link will be available on your Blackboard account towards the end of the semester.

Student Services

Information about ULM student services, such as Student Success Center (<http://www.ulm.edu/cass/>), Counseling Center (<http://www.ulm.edu/counselingcenter/>), Special Needs (<http://www.ulm.edu/counselingcenter/special.htm>), and Student Health Services, is available at the following Student Services web site <http://www.ulm.edu/studentaffairs/>.

Modes of Instruction

Collaborating effectively with your classmates is an emphasis of this course. Most class periods will involve mini-lectures interspersed with short in-class activities. These activities are designed to help you recognize your own preconceptions and practice using scientific reasoning in an environment where you can correct errors immediately. You will be expected to share your ideas within a small group of your classmates and to listen to the ideas of others. Many of these activities will originate from the course packet. Some time will be reserved to answer difficulties with homework assignments. Simulations and animations will be displayed on the computer to help illustrate some abstract concepts.

Help Outside of Class

I will be available during my office hours listed below about 95% of the time. I am available at other times as well. Feel free to stop by at any time. Also, I encourage you to seek out classmates when you need help and to make yourself available for any questions they may have. In particular, please seek out your classmates before asking for my help during office hours in the event that you missed class.

Office Hours

Monday & Friday: 8:00 a.m. – 10:00 a.m.
Tuesday & Thursday: 9:00 a.m. – 11:00 a.m.
Thursday: 1:00 p.m. – 3:00 p.m.

When I am not in a class, I am generally on the first floor of Hanna Hall. Drop in visits are welcome. If possible, however, make an appointment to see me so that I am certain to be available.

Note

No tobacco, drinks, or food are permitted in the classroom. Grades will not be given out over the telephone. Students are asked to turn off any and all personal electronic devices such as cellular phones, beepers, mp3 players, video games, etc. At the discretion of the instructor, each instance of class disruption related to these types of devices may result in a penalty of up to 10% on the next or current exam. Also, the Instructor reserves the right to change a student's seat assignment. Graduating seniors are not exempt from anything. Each student is responsible for all material and assignments covered in class whether or not the student is in class.

Drop Date

The final day to withdraw from this class (**with a “W”**) is Friday, March 23, 2007.

Grading Scale

• $90 \leq \mathbf{A} \leq 100$ • $80 \leq \mathbf{B} < 90$ • $70 \leq \mathbf{C} < 80$ • $60 \leq \mathbf{D} < 70$ • $\mathbf{F} < 60$